APPENDIX C:
APPENDIX I TO ALE TEST PLAN - SUGGESTED FORMAT OF STANDARD TEST AUDIO COMPACT DISC

LIST OF TESTS

SECTION 1 SOUNDS, 6 ADDRESSES

- A A
- B BC
- C GHIJK
- D LMNOPQRSTUVWXYZ
- E 1234567890
- F DEF (Clean Tones)
- G DEF (15 db signal to noise)
- H DEF (10 db signal to noise)
- I DEF (5 db signal to noise)

SECTION 2 100 SOUNDS FOR CHANNEL RECORDING VARIOUS LENGTHS

SECTION 3 ALL CALL -THIS IS <GEORGE>

- A SIMPLE ALL CALL
- B ALL call with short AMD message
- C ALL call with 64 char. AMD message
- D ALL call with a QUICK ID, 90 char. AMD message, and THIS WAS conclusion
- E SIMPLE ALL CALL at scan rate of 5 channels/sec (cps)
- F ALL call with short AMD message at scan rate of 5 cps

SECTION 4 SELECTIVE ALL CALLS

- A SELECTIVE ALL call to “A”
- B SELECTIVE ALL call to “Z”

SECTION 5 INDIVIDUAL CALLING - THIS IS <TOM>

- A SIMPLE LINKING CALL (to BOB)
- B SIMPLE LINKING CALL WITH RETURN TO SCAN
- C-F INDIVIDUAL CALL WITH command LQA report in the acknowledgment

SECTION 6 STAR NET CALLS (with 3 character addresses - THIS IS <IKE>)

- A Simple Star NET call w/3 char addresses
- B Star NET call with command LQA (with 6 character addresses - THIS IS <GEORGE>)
- C Star NET call with command LQA and AMD message (including disconnect after 15 seconds)
- D Star NET call with command LQA and an AMD message in the acknowledgment.
- E Simple Star NET call (same as A) , and responses in slots 1 and 8
- F Star NET call (same as C) w/6 char addresses, and responses in slot 1 and 8
- G Simple Star NET call with a 2-word net name address

H Star NET call (same as F) with a slot 0 response
J Star NET call (same as F) with “garbage” in slot 0

SECTION 7 STAR GROUP CALLS - THIS IS <RONNIE> (& <RON>)
A Simple GROUP call
B GROUP call with command LQA
C GROUP call with command LQA in the call & AMD in ACK
D Simple 3-slot GROUP call from RON
E GROUP call with actual responses in slot 1 and 4
F GROUP call with NULL address in slot 2 of 4

SECTION 8 ANY CALLS - THIS IS <DOC> (HFIA changed from DOOM)
A Simple ANY call
B ANY call with command LQA
C ANY call with command LQA and AMD message
Note: Addresses Acknowledged on CD: TRA, 123DEF, GEORGE.

SECTION 9 SELECTIVE ANY CALLS - THIS IS <DOC> or <DOOM>
A Selective ANY call to “A”
Note: Addresses ACKnowledged on CD: TRA, AAA, CBA. The calling source is “DOC”.
B-C Selective ANY call to “Z”
Note: Addresses ACKnowledged on CD: TRZ, UVWXYZ, ZZZ. Calling source is <DOC> or <DOOM>.

SECTION 10 WILD CARD CALLS - THIS IS <DUM> OR <DUMB>
A WILD CARD call to “TR?” Calling source is <DUMB>
Note: Addresses ACKnowledged on CD: TRA, TR1, TR9.
B WILD CARD call to “???DEF” Calling source is <DUM>
Note: Addresses ACKnowledged on CD: 123DEF, ABCDEF.
C Illegal WILD CARD call to “???DEF” from <DUMB>
Note: No responses are allowed.

SECTION 11 AMD CALLS AND PLACEMENT
A IN THE RESPONSE PART OF A CALL
B SENDING AN AMD AFTER LINKING

SECTION 12 DESCRIPTION OF PERFORMANCE CHECK - Four ALLCALLS
A Each with 6 character AMD scan, the first has no noise, the last three have Gaussian noise added at 30, 10 and -1.5 dB S/N.

SECTION 13 DTM IN THE RESPONSE PART OF A CALL
- A BASIC DTM WITH KD4=0
- B BASIC DTM WITH KD4=1
- C DTM message only for debugging purposes
- D DTM message only for debugging purposes

SECTION 14 CALL ACCEPTANCE SOUNDING
- A TOM Sounds, BOB (UUT1) calls TOM.

FORMAT OF THE STANDARD COMPACT DISC (CD)
Based on the HFIA Test Plan, approved January 1993

=== Audio Compact Disc 01a === NTIA Revised 1-9-95

To simplify the recording of test results, a set of data log sheets are provided as Appendix II.

SECTION 1. SOUNDS
General purpose: The purpose of the sounds is to verify that the UUT can correctly decode various combinations of addresses. Correct reception of these addresses validates the unit's ability to receive all of the valid address characters in the address, that it correctly positions the stuff characters, and that it can correctly decode the DATA and REPEAT words when used in addresses.

Disc details: The test disc will include six sounds generated using the addresses below. Each sound will be 30 seconds long and will be concluded with THIS WAS. The sounding disc will also contain three additional copies of the sound of DEF. One copy will be at 15 dB signal-to-noise, another at 10 dB, and the final copy at 5 dB. (The four copies of DEF at different SNR may be used to test the UUT's channel ranking algorithm if transmitted on four different channels.)

ADDRESSES USE ALL 36 VALID CHARACTERS PLUS THE STUFF CHARACTER

1	A	4	GHIJK
2	BC	5	LMNOPQRSTUVWXYZ
3	DEF	6	1234567890

SECTION 2. ADDRESSES (100 sounds of unique addresses)
General purpose: This section of disc provides 100 addresses in an easy to visibly verify sequence. The sounds are random combinations of characters.

Disc details: The disc will include 100 different unique sounds, each no shorter than 3 TRW's. The sounds can only be copied while the system is listening on a single channel. The gap between sounds is approximately one second. The address lengths are varied with random combinations of valid characters. (The disc may be played multiple times if an address is missed.) Difficult address combinations, and company and individual names will be included

ADDRESSES USED FOR THE 100 SOUNDS
Note: This page has been added by NTIAIITS for the 100 sounds

A:	1	SYD		35	MACKAY		69	USPS
	2	ROCKWELLCOLLINS		36	USDA		70	MTR
	3	HI17		37	CEDARRAPIDS		71	AIRFORCE
	4	123		38	JOE		72	MIT
	5	P64		39	SYE		73	MOT
	6	SY4		40	FREDERICK		74	HARRIS
	7	MISSISSIPPI		41	SYF		75	NORTH CAROLINA
	8	LOST		42	MTG		---	---
	9	P66		43	FTHUACHUCA	F:	76	BAS
	10	CO9		44	FBI		77	ITS
	11	SY9		45	NTIA		78	NEWYORK
	12	MCA		---	---		79	NCS
	13	IDAHO	D:	46	OHIO		80	NKS
	14	MIAMI		47	NBJ		81	NMS
	15	MLA		48	MIL		82	NOSC
	---	---		49	ALL15CHARACTERS		83	MASSACHUSETTS
B:	16	MTA		50	HI		84	NIST
	17	SYA		51	CALIFORNIA		85	MAT
	18	NOAA		52	SY1		86	NET
	19	UTAH		53	COLORADO		87	UST
	20	TRANSWORLD		54	NEVADA		88	UUT
	21	5MB		55	NAVY		89	UUT3
	22	BOB		56	IBM		90	JITC
	23	ILLINOIS		57	KANSAS		---	---
	24	COLLINS		58	SAM	G:	91	MOTOROLA
	25	MLB		59	NEWMEXICO		92	MITRE
	26	SYB		60	TOM		93	OSU
	27	SUNAIR		---	---		94	COMMERCE
	28	DOC	E:	61	FEMA		95	SAMMY
	29	STC		62	USMC		96	WSU
	30	SCHAUMBURG		63	USMINT		97	BOULDER
	---	---		64	SAMUEL		98	TEXAS
C:	31	SYC		65	ARMY		99	KEY
	32	USC		66	USN		100	SYY
	33	USCG		67	DENVER			
	34	ROCHESTER		68	NIO			

100 ADDRESSES, VARIOUS LENGTHS AND CHARACTER COMBINATIONS

Address length	Percentage each
3 char.	50
4 to 6	30
7 to 9	10
10 to 12	6
13 to 15	4

SECTION 3. ALLCALL CALLING

General purpose: The purpose of the Allcall testing is to demonstrate that the unit will link in the Allcall mode and copy the respective traffic. Additional purposes are to verify that the 64 ASCII characters that can appear in the AMD message are correctly implemented, and that the unit correctly decodes the mode words of FROM and THIS WAS. As a general note, all of the calls on the CD assume a scan rate of two channels per second, with the exception of 3E and 3F.

Disc Details: The test disc includes 3 versions of the Allcall.

A The first Allcall is a simple all call signed with a THIS IS conclusion.

B The second Allcall includes a short command AMD message.

C The third Allcall includes the 64 characters in a Command AMD message.

D The fourth Allcall includes the QUICK ID (FROM mode) as part of the call. It also includes a 90 character command AMD message and terminates with a THIS WAS conclusion.

E The fifth call is identical to A, with the scan rate set at 5 channels per second. This test must be performed 3 times with a linking success each time.

F The sixth call is identical to B, with the scan rate set at 5 channels per second.

Calling source: GEORGE

SECTION 4. SELECTIVE ALL CALLING

General purpose: The purpose of the selective Allcall is to demonstrate that a unit will link properly to the selective Allcall broadcast. The test shall include both a test to see that the properly addressed unit responds and that the improperly addressed unit does not respond.

Disc details: The test disc includes two versions of the standard selective ALL call.

A The initial Allcall is a simple selective All call using the selective address of "A" (@A@), with no additional commands. (Only units with an address ending in "A" will link.)

B The second selective Allcall is a simple selective Allcall using the selective address of "Z" (@Z@), with no additional commands. (Units with an address ending in "Z" will link, but those ending in "A" or any other character except "Z" must not link with this call.) Since the units are not programmed with an address ending in "Z", there should be no connection.

Calling source: GEORGE

SECTION 5. INDIVIDUAL CALLING Test A & B added by NTIA, August 1993

General purpose: The purpose of the simple linking call is to verify that the UUT will perform a three-way handshake. Two different calls are included. The first call leaves the UUT linked. The second call terminates the link after approximately eight seconds.

Disc details:

A The first call includes a three-way handshake (TOM to BOB).

B The second call includes a three-way handshake, then breaks the link with a THIS_WAS (TWAS) after about 8 seconds.

Address being called: BOB
Calling source: TOM

General purpose: The second purpose of the INDIVIDUAL calling section is to verify that the UUT will accept an incoming individual call, respond and then properly copy the LQA handshake included in the acknowledgment. The primary purpose of this test is to verify that the UUT can copy the command LQA in the acknowledgment and that the command LQA bits are properly located in the transferred LQA scores. (Since the recorded signal has no way of time synchronizing itself with the target radio, the test operator may have to pause the playing disc to allow the recorded acknowledgment to be properly timed.)

Disc details: The test disc consists of a series of individual calls and acknowledgments. The time between the call and acknowledgment should be set for a channel type with no tuning of the transceiver required.

C-F Four different LQA values are sent ranging from the maximum to minimum.

Address being called: BOB
Calling source: TOM

SECTION 6. STAR NET CALLING

General purpose: The purpose of the NET call section is to verify that the receiving unit can recognize the net address and from preprogrammed information determine when it must respond. It also includes different types of net calls to validate the UUT's ability to adjust the slot timing for the different calling conditions.

Disc details: The test disc includes four versions of the standard net call. As an aid to determining the slot boundaries, the test disc will **include time ticks at each slot boundary**, allowing testers to determine if the responses are correctly placed. NTIA included some of the key responses from other net members in the appropriate slots as suggested by HFIA members. These were placed on the **left** channel to simulate an incoming signal from the other net stations (to be received by the UUT).

A The initial NET call is a simple NET call, with no additional commands.
NET address configuration is
Name of net: NT1

Slot 0	(reserved)
Slot 1	ABC <== Test 6E response on left chan
Slot 2	DEF
Slot 3	GHI
Slot 4	JKL
Slot 5	MNO
Slot 6	PQR
Slot 7	STU
Slot 8	WXY <== Text 6E response on left chan
Slot 9	Z12 <== Reserved for UUT1 response

Calling source: IKE

B The second NET call includes a command LQA in the call, thus causing each slot to be 392 ms longer. (Same addresses as in A.)

C The third NET call includes both a command LQA (in the calling section) and command AMD, respectively. (Call includes a NET disconnect approximately 15 seconds after the acknowledgment and uses the following 6 character addresses.)

(Note that the command AMD begins with a REPEAT mode word, since it is a sequential command word.)

NET address configuration is

Name of net:	NT2 (Name changed by NTIA 8/93)
Slot 0	(reserved)
Slot 1	ABCDEF <== Test 6F response on left chan
Slot 2	GHIJKL
Slot 3	MNOPQR
Slot 4	STUVWX
Slot 5	YZ1234
Slot 6	567890
Slot 7	123456
Slot 8	789ABC <== Test 6F response on left chan
Slot 9	DEFGHI <== Reserved for UUTI response

Calling source: GEORGE

D The fourth NET call includes a command LQA in the call and a command AMD in the Acknowledgment. (It uses the addresses described in C.)

E The fifth NET call is identical to the first (Test 6A using NT1), except the test CD has actual responses of ABC in slot 1 and WXY in slot 8 on the left channel.

F The sixth NET call is identical to the third (Test 6C using NT2), except the test CD has actual responses of ABCDEF in slot 1 and 789ABC in slot 8 on the left channel.

G The seventh NET call includes the same NET address configuration as Test 6A. The difference is that the name of the net is changed from NT1 to NET1 to demonstrate network capability with networks that have addresses greater than three characters. Note: The Beta Test CD-01 issued on August 30, 1993, had an error in the caller's address: it was changed from GEORGE to IKE on the current CD. This was test 14A on the August 30 CD.

H The eighth NET call is identical to the third (Test 6C using NT2), except the test CD has an emergency response in slot 0 from JAMES, and actual responses of ABCDEF in slot 1 and 789ABC in slot 8, all on the left channel.

J The ninth NET call is identical to the third (Test 6C using NT2), except the test CD has a "garbage" response in slot 0, and actual responses of ABCDEF in slot 1 and 789ABC in slot 8, all on the left channel.

SECTION 7. STAR GROUP CALLING

General purpose: The purpose of the GROUP call section is to verify that the receiving unit can recognize the GROUP addressing and from the embedded information determine when it must respond. It also includes different types of GROUP calls to validate the UUT's ability to adjust the slot timing for the different calling conditions.

Disc details: The test disc includes three versions of the standard GROUP call. As an aid to determining the slot boundaries, the test disc will **include time ticks at each slot boundary**, allowing testers to determine if the response was correctly placed. The actual responses are on the **left** channel of the test CD for some of the calls.

A The initial GROUP call is a simple GROUP call.

B The second GROUP call includes a command LQA in the call, thus causing each slot to be 392 ms longer.

C The third GROUP call includes a command LQA (in the calling section) and command AMD (in the ACK section).

GROUP addresses used for the call are
Name of GROUP: GROUP (not used over the air.)
Slot 1: ABC <== Response #1 in Test 07E on CD
Slot 2: DEF
Slot 3: GHIJ
Slot 4: 456789DEF <== Response #2 in Test 07E on CD
Slot 5: GHIJKLMNOPSTUVW <== Response of UUTI
Calling source: RONNIE

D The fourth GROUP call is a simple 3 slot GROUP call similar to the first (Test 7A), except the calling source is "RON", and only the stations responding in the first three slots in the table above are used.

GROUP addresses used for the call are
Name of GROUP: GROUP (not used over the air.)
Slot 1: ABC <== Response #1 in Test 07D on CD
Slot 2: DEF
Slot 3: 123DEF <== Response of UUTI
Calling source: RON

E The fifth GROUP call is identical to the first (Test 7A), except the test CD has actual responses of ABC and 456789DEF in slots 1 and 4 respectively on

the left channel. UUT1 is expected to respond in slot 5 with the address of GHIJKLMNOPSTUVW.

F The sixth GROUP call is a simple four-slot GROUP call similar to Test 7D, using “RON” as the calling source, and inserting a NULL address in slot 2. The stations responding in the four slots will be “ABC”, NULL, “DEF”, and “123DEF” respectively in slots 1 to 4.

GROUP addresses used for the call.
Name of GROUP: GROUP (not used over the air.)
Slot 1: ABC
Slot 2: @@@
Slot 3: DEF
Slot 4: 123DEF <== Response of UUTI
Calling source: RON
Note: ACK includes all addresses.

SECTION 8. ANY CALLING

General purpose: The purpose of the ANY call test is to verify that the receiving unit can recognize the ANY call addressing. It also includes different types of ANY calls to validate the UUT’s ability to adjust the slot timing for the different calling conditions.

Disc details: The test disc includes three versions of the standard ANY call. As an aid to determining the slot boundaries, the test disc will include time chimes and a verbal slot count at each slot boundary, allowing testers to determine if the responses are correctly placed.

A The initial ANY call is a simple ANY call, with no additional commands.

B The second ANY call includes a command LQA in the call, thus causing each slot to be 392 ms longer.

C The third ANY call includes a command AMD (in the calling section) and command LQA.

Note: The following addresses are ACKnowledged: TRA. (123DEF & GEORGE)
Calling source: DOC (Changed from DOOM" 9/93)

SECTION 9. SELECTIVE ANY CALLING

General purpose: The purpose of the selective ANY call is to demonstrate that a unit will respond properly to the selective ANY call broadcast. The test shall include both a test to see that the properly addressed unit responds and that improperly addressed units do not respond.

Disc Details: The test disc includes two versions of the standard selective ANY call. As an aid to determining the slot boundaries, the test disc will **include time chimes and a verbal slot count at each slot boundary**, allowing testers to determine if the response was correctly placed.

A The initial ANY call is a simple selective ANY call using the selective address of "A" (@@A), with no additional commands. (Unit with addresses ending in "A" respond.)
Note: The following addresses are ACKnowledged: TRA. (AAA & CBA)
Calling source: DOC (Changed from "DOOM" 9/93)

B The second selective any call is a simple selective ANY call using the selective address of "Z" (@@Z), with no additional commands. (Units with address ending in "A" or any other character except "Z" must not respond. Only units ending in "Z" must respond.)
Note: The following addresses are ACKnowledged: TRZ, ZZZ and UVWXYZ.
Calling source: DOC (Changed from "DOOM" 9/93)

C The third selective any call is a simple selective ANY call using the selective address of "Z" (@@Z), with no additional commands. (Unit with address ending in "A" or any other character except "Z" must not respond. Only one-word address units ending in "Z" may respond.)
Note: The following addresses are ACKnowledged: TRZ, ZZZ.
Calling source: "DOOM". UVWXYZ is NOT allowed.

SECTION 10. WILDCARD CALLING

General purpose: The purpose of the WILDCARD call is to demonstrate that a unit will respond and link when a call is made using an address that matches by character count and by the specified ASCII 36 characters. (The use of the question mark is identical to the DOS command of "?", as used in a DIRectory command.)

Disc details: The test disc includes two versions of the standard WILDCARD call. As an aid to determining the slot boundaries, the test disc will **include time chimes and a verbal slot count at each slot boundary**, allowing testers to determine if the response was correctly placed.

A The initial WILDCARD call is a simple WILDCARD call using the address of "TR?" with no additional commands. (The call is to any address of three characters with the first two characters being "TR".)
Note: The following addresses are ACKnowledged: TRA, TR1 and TR9.
Calling source: DUMB

B The second call is a WILDCARD call using the address of "???DEF" and no additional commands.
Note: The following addresses are ACKnowledged: ABCDEF and 123DEF.
Calling source: DUM (Changed from "DUMB" 9/93)

C The third call is a WILDCARD call using the address of "???DEF" and no additional commands.
Note: Because the calling source is "DUMB", an address length of 2 T_{rw}, this is a bogus call; units must return to Scanning mode. The following addresses should **not** be ACKnowledged (but **are** on the CD): ABCDEF and l23DEF.

Note from NTIA/ITS: The HFIA TAP had an error using "DUMB" as the source for the two word WILDCARD call. This is not permitted in FED-STD-1046/1. The Beta Test CD-01 had the address "DUMB"; it was decided to correct the error and put both good and bad calls in the final release.

SECTION 11. AMD CALLS AND PLACEMENT (TEST MESSAGE IN RESPONSE)

General purpose: The first purpose is to test the ability of the radio to receive an AMD message after a link-up. The second purpose of this sequence is to provide a test message that can be used as a response to a call. The response includes an AMD message (max length).

Disc details: The first call is to demonstrate that the UUT can send/receive AMD messages with another station after being linked. The test verifies that the UUT is **always listening**, and that it will **always use the three-way handshake**. The AMD is from the original caller (TOM). The original caller terminates the link approximately six seconds after the AMD.

The second call in this sequence on the disc contains the response only, which includes a command AMD message of 90 characters and a conclusion. The CD player must be placed in the "PAUSE" mode at the beginning of the tones in this track, and started when the UUT completes the scanning "CALL". The tune-up time for the UUT should be set for several seconds to prevent missing the CD tones.

A The call includes a three-way handshake. After linking, another three-way handshake exchanges an AMD in the acknowledgement. This test is a mandatory feature of the ALE Standards, added by NTIA in March 1994.
Address called: BOB
Calling source: TOM

B Responding stations address: AMDINRESP (this station), Calling station address: PROVEAMDINRESP

The AMD message of Test 07B: The test message of all 64 legal ASCII characters plus duplications to make it a full 90 character message.

SECTION 12. DESCRIPTION OF PERFORMANCE CHECK

Disc details: The acquisition testing will be performed using a broadcast call consisting of the ALLCALL plus an included AMD message of six characters. (The message can be unique for each test.) While this type of broadcast call can provide a good qualitative evaluation of the UUT performance, it is not intended to be a replacement for the system performance linking probability test (three-way handshake) required by FS-1045A.

The test disc will have 100 calls for each of the respective conditions. The disc output will be modulated to RF via a radio (or a balanced modulator and a signal generator), where a scanning receiver will hear the signals. Following each call in the simulated conditions, there will be a clean tone disconnect signal transmitted after approximately five seconds to return the UUT to scanning.

NOTE: The time between the disconnect and the next call will randomly vary from three to 12 seconds. Otherwise the units will always be in a certain part of the scan cycle for each new call.

Assume about 30 seconds per test
or 3000 seconds for a set of 100 calls (50 minutes)
or 600 minutes for all 12 tests (10 hours)
or 20 hours to do it at 2 and 5 channels per sec.

Disc 01a has four calls, the first with clean tones and the other three with Gaussian noise added to the tones at signal-to-noise ratios of 30, 10 and -1.5 dB, respectively. The signal level is 1/2 of the signal level of all the other calls on this disc, necessitated by the wide excursions of amplitude when noise, multipath and fading are added. See note at end of this document about the degraded tones on the CDs for FY 95.

SECTION 13. OPTIONAL BASIC DTM CALLS -- Added by NTIA, August 1993

General purpose: The purpose of this sequence is to demonstrate that a unit has DTM capability. Disc details: The DTM BASIC mode is used for all DTM calls provided on the CD. The first two calls include a DTM message in the response portion of a three-way handshake. The second two calls send the DTM as a stand-alone message. This is NOT allowed in the FED-STD, but provided merely as an example. Examples of the EXTENDED DTM are not provided. The compact disc includes four versions of the standard DTM call. The control bit KD4 is set to "0" for ACK, and "1" for NAK.

A The DTM message is included in the response portion of a three-way handshake. (KD4 = 0)

B The DTM message is included in the response portion of a three-way handshake. (KD4 = 1)

C Stand-alone DTM message: KD4 = 0. (for debug purposes)

D Stand-alone DTM message: KD4 = 1. (for debug purposes)

Address called: BOB.
Calling source: GEORGE
The last two tests (Test C & D) are not valid calls by themselves.

SECTION 14. OPTIONAL CALL ACCEPTANCE -- Added by G. Harrison, October 1993

General purpose: The purpose of call acceptance sounding is to allow a station to link with any system that issues the sound, immediately after the sound has ended.

Disc details:

A The CD issues the sound (THIS_IS TOM). The UUT (ID = BOB) responds with three-way linking call to TOM.

Calling source (sound):	TOM
Calling source (call):	BOB (UUT1)
Address called:	TOM

=== Audio Compact Discs 02 - 13 ===

Not currently funded

The next 12 discs will each contain approximately 50 minutes of the degraded signals for each of the 12 conditions (four each S/N and three types of channel conditions) according to the HF ALE Standards. The tests will follow the protocol outlined in Section 12.

Even if the funding is not obtained for reproduction of these 12 audio CDs, NTIA/ITS intends to release the software and protocol files which generate the large audio sound files. These may be used with a high quality (DSP based) sound card to perform the tests. The software package, when complete, will be placed on the Internet.

=== Copyright Notice ===

The authors and maintainers of the ALE Clean Tone Database are with the National Telecommunications and Information Administration (NTIA), the Institute for Telecommunication Sciences (ITS) in Boulder, Colorado. Specifically the Wireless Networks Group (ITS.N1) developed the Special Database of ALE tones under the sponsorship of the National Communications System (NCS), Office of Technology and Standards (NT).

Quick Reference Guide for ALE Programming of First Unit Under Test (UUT1)
Provided by NTIA for use with Audio Compact Disc 01a

Self Addresses	**Others**
TRA	DOOM, DUMB
BOB	TOM, GEORGE
Z12	IKE
DEFGHI	GEORGE
GHIJKLMNOPSTUVW	RONNIE, RON
123DEF	DUM, DOC, RON
PROVEAMDINRESP	AMDINRESP

Nets/Slots

Net Name: NT1 Call initiated by IKE
Slots:

- Slot 0 (reserved)
- Slot 1 ABC #
- Slot 2 DEF
- Slot 3 GHI
- Slot 4 JKL
- Slot 5 MNO
- Slot 6 PQR
- Slot 7 STU
- Slot 8 WXY #
- Slot 9 Z12 *

Net Name: NET1 Call initiated by IKE
Slots:

- Slot 0 (reserved)
- Slot 1 ABC
- Slot 2 DEF
- Slot 3 GHI
- Slot 4 JKL
- Slot 5 MNO
- Slot 6 PQR
- Slot 7 STU
- Slot 8 WXY
- Slot 9 Z12 *

Net Name: NT2 Call initiated by GEORGE
Slots:

- Slot 0 (reserved)
- Slot 1 ABCDEF #
- Slot 2 GHIJKL
- Slot 3 MNOPQR
- Slot 4 STUVWX
- Slot 5 YZ1234
- Slot 6 567890
- Slot 7 123456
- Slot 8 789ABC #
- Slot 9 DEFGHI *

* Self addresses used above for UUT 1 to respond in slot shown.
# Simulated 3rd party responses in selected tests

Quick Reference Guide for ALE Programming of Second Unit Under Test (UUT2)

For use with UUT2 after UUT1 has been tested with Audio Compact Disc 01a

Self Addresses	**Others**
TOM	BOB
IKE	Z12
DUM	123DEF
RON	GHIJ
AMDINRESP	PROVEAMDINRESP
GEORGE	DEFGHI
RONNIE	GHIJKLMNOPSTUVW
DOC	
DOOM	
DUMB	

Nets/Slots

Net Name: NT1 Self ID = IKE

Slots:

- Slot 0 (reserved)
- Slot 1 ABC
- Slot 2 DEF
- Slot 3 GHI
- Slot 4 JKL
- Slot 5 MNO
- Slot 6 PQR
- Slot 7 STU
- Slot 8 WXY
- Slot 9 Z12 *

Net Name: NET1 SELF ID = IKE

Slots:

- Slot 0 (reserved)
- Slot 1 ABC
- Slot 2 DEF
- Slot 3 GHI
- Slot 4 JKL
- Slot 5 MNO
- Slot 6 PQR
- Slot 7 STU
- Slot 8 WXY
- Slot 9 Z12 *

Net Name: NT2 Self ID = GEORGE

Slots:

- Slot 0 (reserved)
- Slot 1 ABCDEF
- Slot 2 GHIJKL
- Slot 3 MNOPQR
- Slot 4 STUVWX
- Slot 5 YZ1234
- Slot 6 567890
- Slot 7 123456
- Slot 8 789ABC
- Slot 9 DEFGHI *

* Expected response slot from UUT 1 when programmed with these addresses used above.